

## **Lake Winnebago 2012 Spring Refill Conference Call Minutes**

**Introduction:** The U.S. Army Corps of Engineers (USACE), Detroit District held its annual Lake Winnebago drawdown conference call on April 11, 2012. Mr. Keith Kompoltowicz, Chief of the Watershed Hydrology Branch for the USACE, Detroit District, opened the call at approximately 1:00 pm (C.D.T.), with a roll-call of attendees. A list of participants may be found at the end of this document.

**Presentation of Agenda:** Mr. Kompoltowicz began the call by presenting the agenda. This included a discussion on the basin's current and expected spring conditions, refill timing and extent, and an open discussion.

**Basin Conditions and Significant Events since the January Drawdown Conference Call:** Mr. Kompoltowicz stated that the weather this past winter was very abnormal. Temperatures across the basin were much above average which prevented a sustainable snowpack from developing. After coordination with the DNR, the USACE strategy for a drawdown target was altered to 2.0 ft. Oshkosh Datum (OD) based on the abnormal basin conditions that persisted over the winter.

### January

The average monthly temperature in Oshkosh was 5 degrees above average. Precipitation was below normal for the month and a sustained snowpack never developed due to the warm temperatures. Shawano averages about a foot of snow in January, but only received 7.9 inches this year.

The warm temperatures also affected ice formation across the lakes. A solid ice cover briefly formed on January 29 which is several weeks later than normal.

As discussed at the drawdown call, the target drawdown level would depend on snowpack and basin conditions. If little snowpack persisted, a higher target than 1.68 ft. would be possible. If a decent snowpack began to build, a drawdown to the typical 1.68 ft. target by March 1 would occur. Given the basin conditions, the level was kept near 2.0 ft. By the end of the month, the level was 2.06 ft. which is 0.20 ft. higher than last year's level. Only one gate change was made in January. 3 gates were open at Menasha for most of the month and outflows were about 3,500 cfs.

### February

February was even warmer than January. The average monthly temperature in Oshkosh was 7 degrees above normal. The month was quite dry until February 29 when half of the monthly precipitation fell as a mixture of snow, sleet and rain. Thanks to that last minute storm, the February 2012 total precipitation was near normal. There was no snowpack across the basin during the month. The warm temperatures prevented any snow that fell from sticking.

The lake was mostly ice covered, but had several open areas and the ice thickness varied quite a bit. With such abnormal conditions for February and the lack of a solid ice cover and snowpack, it was decided to hold the level near 2.0 ft. The USACE and the DNR remained in constant contact during this period and collaborated on the decision. By the end of the month, the level was 2.03 ft. with 3 gates open. Outflows at Appleton were around 3,000 cfs.

### March

The first few days of the month finally brought measurable snow to the area. The basin received about 4-6" of wet, heavy snow, but it quickly melted. To keep the level from rising too quickly from the runoff, gates at both the Neenah and Menasha dams were opened. There were 2 gates open at Neenah and 5 gates open at Menasha for the first 3 weeks of March.

By March 18, the lake was ice free. Sustained daily high temperatures in the 70s caused the ice to melt quickly. The average monthly temperature in Oshkosh was 15 degrees above normal. A new record of 82 degrees was set on March 21 in Green Bay and Oshkosh.

Precipitation for the month was above average with most of the precipitation falling as rain. Saturated soil conditions in combination with the heavy rain events caused inflows to average about 8,000 cfs while they typically average 5,000 cfs in March. On March 22 and 23, another inch of rain fell leading to the opening of another 3 gates at the Neenah dam. At that time all tainter gates were open at both dams when an additional inch of rain fell on March 30. By the end of the month, the level was 2.35 ft. with outflows around 9,500 cfs.

### April

Temperatures continue to be above normal by several degrees basin wide. Precipitation is slightly below normal, but it is still early in the month and things can change quickly in the spring.

With inflows drying up quickly, most of the gates were closed to allow the level to rise and keep the lake on target. The current gate setting is 1 gate open at Menasha and 1 gate open at Neenah with an outflow at Appleton of about 3,100 cfs.

Holding the lake level higher than normal through the winter has put conditions back on track with spring levels experienced over the past several years. The current level of 2.33 ft. is a typical level for mid-April.

### River Conditions

The Lower Fox River did not freeze over this winter. There were a few nights when temperatures and wind conditions caused concern for frazil ice, but overall the river was open and flowing from January – March. Flows in the river averaged 3,500 cfs in January and February which is normal. By March,

however, flows were around 7,000 cfs as compared to the average 5,500 cfs. Outflows during the last week of March and first week of April were 9,500 cfs which is much higher than average.

**Current Ice Conditions and Snowpack:** There is no snowpack in the basin or ice cover on any of the lakes. Mr. Techlow reiterated that the abnormally warm winter delayed ice formation and caused a premature melt. The growing season for many vegetative species across the basin is ahead of schedule.

Mr. Kompoltowicz thanked Mr. Techlow for his update and then asked Mr. Brian Hahn from the National Weather Service to provide an update on the expected spring weather conditions.

**Spring Outlook:** Mr. Hahn stated that the winter was in fact quite abnormal and discussed the forecast for the next 7 to 10 days. He mentioned an increased chance for showers and a few thunderstorms in the near term. Longer term forecasts showed equal chances for above, below or normal precipitation. Abnormally dry drought conditions were in place over northern and western WI, but areas in and around the Fox-Wolf system did not have any drought conditions. Frost depths were very shallow this year, due to the warmer than average temperatures.

Mr. Kompoltowicz thanked Mr. Hahn for his update and then discussed the proposed strategy for the next few months.

**Refill Strategy:** Mr. Kompoltowicz explained that the regulation strategy, as in previous years, is to achieve 3.0 ft. by June 1. Given the current lake level of 2.33 ft., an increase of about 0.02 ft/day is needed. Given current conditions, there needs to be about a +1,600 cfs differential between inflows and outflows. The current gate setting of 1 gate open at Menasha and 1 gate open at Neenah keeps the lake on target to hit 3.0 ft. by June 1. Weather conditions will be monitored over the next several weeks and necessary gate adjustments will occur in order to achieve the target of 3.0 ft. by June 1 over the next 7 weeks.

Mr. Kompoltowicz then opened up the discussion to any questions and/or comments from the audience.

Ms. Janet Wagner, a shoreline property owner, asked what the outlook is for algae and weed growth this year on the lake. Mr. Techlow said water clarity is the driver for plant growth and by mid-May, a better indication would be available. The DNR is collecting data which preliminarily shows that water clarity has been improving over the last 15 years, however, a concrete reason for the increased clarity is unknown. So far this year, the water has been quite turbid which is typical when you have increased inflows and more runoff.

Mr. Rob Elliot from the Fish and Wildlife Service asked the Corps to keep flows fairly constant over the next few weeks as the sturgeon spawn has not started in the Lower Fox

River. Now that the spawn is winding down on the Wolf River, he anticipates the spawn on the Lower Fox to start within the next week or two. Mr. Kompoltowicz thanked Mr. Elliot for his input and explained that the Corps will be in contact with the FWS over the next few weeks to get updates on river and spawning conditions.

Mr. Bob Beckstrom from Oshkosh asked about the strategy for the rest of the summer once 3.0 ft. is attained on June 1. Mr. Kompoltowicz explained that the regulation plan aims to keep the level as close to 3.0 ft. as possible for the entire summer.

There were no further questions, so Mr. Kompoltowicz wrapped up the call and thanked everyone for their participation. He then urged the audience to check the Lake Winnebago webpage at [www.lre.usace.army.mil/glhh/winnebago](http://www.lre.usace.army.mil/glhh/winnebago). He also asked people to contact Melissa Kropfreiter at [Melissa.a.kropfreiter@usace.army.mil](mailto:Melissa.a.kropfreiter@usace.army.mil) to receive meeting notices and a copy of the meeting minutes. Mr. Kompoltowicz again thanked everyone for their participation and stated that the next meeting will be the annual regulation meeting in October.